Climate Goal FY2008 PBA Summary

1. Identify the current strengths, weaknesses, opportunities, and threats in delivering on CIO Council outcomes.

Strengths
That fact that IT is now incorporated into the PBA planning process is an important first step to working with the Program Managers to better plan for programmatic IT requirements.

Weaknesses
It may not be clear to the Program Managers what the CIO Council IT priorities are. Have these been shared with the Program Managers? Doing so would give a context/meaning to the IT Council questions and could provide the increased awareness needed to address IT infrastructure capabilities along with programmatic capabilities in the gap analysis section of the PBA.

During the PBA planning process (it may be too late for FY08), we could even ask them to rank order the IT infrastructure priorities that are needed to meet their program goals. Then we could establish a dialogue for where NOAA-wide IT gaps exist that are needed to support their program. That would help the Council in answering question #2 below because they would tell us instead of us having to make educated guesses.

Opportunities
The IT Council survey questions in the FY08 PBA planning process are a good start. It is essential now to follow up on that process with 2-way communications so the Program Managers and the Council can build the IT solutions that meet program gaps.

The CIO intranet website might be the collaborative tool for this kind of exchange or perhaps better yet, use the PPBS website since that is where the PPBS process resides.

Threats
N/A

2. Prioritize the most important goal-level gaps needing to be addressed.
Climate PBA data is current as of 6/30/2005 download)

- **Question:** Under the Climate Goal, there is only one cross-cutting priority addressed in the Cross-cutting Priorities Section, and that is IOOS. Why is CLASS not included as a cross-cutting priority in the PBA survey?

- **Potential IT goal-level gaps for IOOS.** IOOs is supported across 4 of the 5 climate programs. Percentages and a short description of IT requirements only are provided below.

- o Observation and Analysis - 47% (data management and communications; derived products, forecasts, decision support tools; technology transfer; modeling; observing systems)
- o Predictions and Projections – 25% (coupled ocean-atmospheric models)
- o Forcing – 2% (database management system and real-time web access)
- o Region Decision Support - none
- o Ecosystems – 75% (biophysical ecosystem models as knowledge and predictive tools)

- **IT Council Question Responses**

IT Question Responses	Observation & Analysis	Predictions & Projections	Forcing	Regional Decision Support	Climate & Ecosystems
EA Sys.Sup.	112	Unk	1103	No	0
EA Resources	FTEs: 170 Contractors: 85	Unk	N/A	No	N/A
Workforce Collaboration Tools	77 170 Acrobat Prof. (255) Total $25,000	33 2 None Identified	25 1 e-learning, better VTC access	No No No	0 0 N/A
Tech Refresh	230	150	Handled by LO	0	0
IT Security	1103 170	1291 2	Handled by LO Handled by LO	0 0	0 0

- **Program IT Gaps**

Predictions and Projections Program Gap: Environmental Modeling

HPCC program gap for climate research facilities (GFDL, NCEP):
"Outlooks and assessments, applied research and product development, high-end climate/Earth System Model development, test models against observations and define requirements for observing system to support forecasts and improve model."

The other 4 climate programs also indicated modeling as a gap but not at a high performance computing level.

Regional Decision Support (Environmental Modeling through the Weather and Water Environmental Modeling Program)
  Climate and Ecosystems (modeling to support IOOS)
Climate Forcing (to provide modeling, satellite, and ocean support for meeting the CCSP requirement to "improve quantification of the forces bringing about changes in the Earth's climate and related systems (and) provide near-term and mid-term decision support information and assessments")
Climate Observation & Analysis (Quality upper atmospheric observations are important for operational forecasting, including quality inputs for modeling. Climate change scientists and researchers also have a fundamental interest in this information.)

Observation and Analysis Program: End-to-end Systems

"Adequate IT infrastructure that meets the projected data growth rates (archive – ingest/inventory/QC/long term storage and access) from new observing systems and to meet customer access and retrieval demands."

"Data management consists of two major activities conducted in coordination: data management services and data stewardship. They constitute a comprehensive end-to-end process including movement of data and information from the observing system sensors to the data user. This process includes the **acquisition, quality control, metadata cataloging, validation, reprocessing, storage, retrieval, dissemination, and archival of data**."

3. Review last year's AGM priorities and recommendations.

- Enabler: Improve Critical Infrastructure and Services: the refresh question (PBA IT question #22) is a start for the existing infrastructure but a question could be added to address IT requirements that are needed to **expand** program capabilities beyond tech refresh.

  Suggestion: An estimate could be provided. In the budget cycle for that fiscal year, this information is captured in the IT "one pagers" to justify budget increases. The "one pagers" could be linked in Casa Nosa.

- Enabler: Advance the Use of Technology

  In the *Climate Predictions and Projections* PBA: test bed capability to evaluate new technologies and the need to develop an approach in planning for/applying them is addressed in the context of high performance computing.

4. Recommend which program capabilities and priorities would improve the NOAA Program from the council's own cross-NOAA perspective.

Predictions and Projections Program Gap: Environmental Modeling
Council Priority: High Performance Computing

Climate Observation and Analysis Program Gap: End-to-end Systems
Council Priority actually named in the PBA: Integrated Data Management, Web Presence/Dissemination, Archiving

Not named, but foundational to accomplishing this goal, these Council priorities: Corporate Enterprise Network and Enterprise Architectures, Corporate Solutions and Common Solutions.